

Claims

1. A belt retractor for a vehicle safety belt, said belt retractor comprising a frame and a belt spool (1) which is rotatably mounted in said frame, and at least one locking tooth (2, 3) which is connected with said belt spool, a first locking catch (5) and a second locking catch (6) being provided, which are supported on said frame and can engage into said at least one locking tooth (2, 3), said first locking catch (5) being able to swing about a point of rotation which is arranged such that with said first locking catch (5) guided into said locking tooth (2, 3) a virtual line, which passes through a point of contact between said first locking catch (5) and said locking tooth (2, 3) and stands perpendicularly on a tooth face in said point of contact, runs between said point of rotation and a rotation axis of said belt spool (1), and said second locking catch (6) being able to swing about a point of rotation which is arranged such that with said second locking catch (6) guided into said locking tooth (2, 3), a virtual line which passes through a point of contact between said second locking catch (6) and said locking tooth (2, 3) and stands perpendicularly on a tooth face in said point of contact, runs on the side of said point of rotation facing away from said rotation axis of said belt spool (1).
2. The belt retractor according to Claim 1, characterized in that in a process of guiding in, said first locking catch (5) when guided in engages into said locking tooth (2, 3) and said second locking catch (6) when guided in arrives into a non-locking position spaced apart from said tooth face of said locking tooth (2, 3).
3. The belt retractor according to Claim 2, characterized in that said first locking catch (5) is constructed so as to be flexible.
4. The belt retractor according to Claim 3, characterized in that said first locking catch (5) is constructed as an additional part on said second (6) locking catch, which is connected with said second locking catch (6) by a predetermined breaking point.

5. The belt retractor according to Claim 1, characterized in that a first locking  
toothing (3) and a second locking toothing (2) are provided, which each are  
connected with said belt spool, said first locking catch (5) being able to engage  
into said first locking toothing (3) and said second locking catch (6) being able to  
5 engage into said second locking toothing (2).

6. The belt retractor according to Claim 5, characterized in that teeth of said  
first locking toothing (3) are constructed without undercut and teeth of said  
second locking toothing (2) are constructed with undercut.

7. The belt retractor according to Claim 1, characterized in that teeth of said  
10 first locking catch (5) are constructed without undercut and teeth of said second  
locking catch (6) are constructed with undercut.

8. The belt retractor according to Claim 5, characterized in that said first  
locking toothing (3) is arranged on a locking disk which is rotatable relative to  
said second locking toothing (2), and that a spring (4) is provided, which urges  
15 said locking disk relative to said second locking toothing (2) into an initial  
position in which it precedes said second locking toothing (2).

9. The belt retractor according to Claim 1, characterized in that with said  
locking catch (5) guided into said locking toothing (3), a virtual line which passes  
through said point of contact between said locking catch (5) and said locking  
20 toothing (3) and stands perpendicularly on said tooth face in said point of contact,  
runs right through said point of rotation of said locking catch (5).

10. The belt retractor according to Claim 1, characterized in that said first  
locking catch is produced from a flexible material.